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**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

|  |  |   |
|--|--|---|
| INTERNATIONAL APPLICATION NO.<br>PCT/US2004/003074 | INTERNATIONAL FILING DATE<br>4 February 2004 | PRIORITY DATE CLAIMED<br>15 December 2003 |
|--|--|---|

**TITLE OF INVENTION**  
**FAST QUANTUM MECHANICAL INITIAL STATE APPROXIMATION**

**APPLICANT(S) FOR DO/EO/US**  
Anargyros PAPAGEORGIOU et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1.  This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2.  This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3.  This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4.  The US has been elected (Article 31).
5.  A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a.  is attached hereto (required only if not communicated by the International Bureau).
  - b.  has been communicated by the International Bureau.
  - c.  is not required, as the application was filed in the United States Receiving Office (RO/US).
6.  An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
  - a.  is attached hereto.
  - b.  has been previously submitted under 35 U.S.C. 154(d)(4).
7.  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a.  are attached hereto (required only if not communicated by the International Bureau).
  - b.  have been communicated by the International Bureau.
  - c.  have not been made; however, the time limit for making such amendments has NOT expired.
  - d.  have not been made and will not be made.
8.  An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9.  An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10.  An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11 to 20 below concern document(s) or information included:**

11.  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13.  A preliminary amendment.
14.  An Application Data Sheet under 37 CFR 1.76.
15.  A substitute specification.
16.  A power of attorney and/or change of address letter.
17.  A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825.
18.  A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19.  A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| U.S. APPLICATION NO. (if known, see 37 CFR 1.5)<br>10/582298   | INTERNATIONAL APPLICATION NO.<br>PCT/US2004/003074 | ATTORNEY'S DOCKET NUMBER<br>19240.171US3                                      |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
|--|--|---|--|--------------|--------------|-------------|--------------|--------|---|---------|--|-------|---|----------|---|-------|----|---|--|-----|--|--|--|-------|----|--|--|-------|--|--|----------------------------|-------|--|--|---------------------------------|--|-----------|-------------|---|--|--|--|--------------|--------------|---|------|---------|-------|--|------------|--|--|--|-----------|---|--|--|--------|--------------|--------------|------|--------------|--------|---|---------|--------------------|-------|---|----------|---|--|--|---|-----------|--------------------------------------|--|--|------------------|---|--|--|-------|-------------------|--|--|-----------------|---|--|--|----|-----------------------------|--|--|----------------|--|--|--|----|--|--|--|----|------------------------------|--|--|--------------------|----------|--|--|---------------------------|--|--|--|-------------------------|
| 20. <input checked="" type="checkbox"/> Other items or information: 5 Month Petition for Extension of Time, Part 2 Copy of Notice, Return Receipt Postcard   |  |   |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <p>The following fees have been submitted</p> <table border="1"> <tr> <td>21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....</td> <td>\$300</td> <td>CALCULATIONS</td> <td>PTO USEONLY</td> </tr> <tr> <td></td> <td>\$</td> <td></td> <td></td> </tr> <tr> <td>22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))<br/>If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....</td> <td>\$0</td> <td></td> <td></td> </tr> <tr> <td>All other situations .....</td> <td>\$200</td> <td>\$</td> <td></td> </tr> <tr> <td>23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))<br/>If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....</td> <td>\$0</td> <td></td> <td></td> </tr> <tr> <td>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....</td> <td>\$100</td> <td>\$</td> <td></td> </tr> <tr> <td>International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB .....</td> <td>\$400</td> <td></td> <td></td> </tr> <tr> <td>All other situations .....</td> <td>\$500</td> <td></td> <td></td> </tr> <tr> <td colspan="2"><b>TOTAL OF 21, 22 and 23 =</b></td> <td><b>\$</b></td> <td><b>0.00</b></td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).<br/>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.         </td> <td></td> </tr> <tr> <td>Total Sheets</td> <td>Extra Sheets</td> <td>Number of each additional 50 or fraction thereof (round up to a whole number)</td> <td>RATE</td> </tr> <tr> <td>- 100 =</td> <td>/50 =</td> <td></td> <td>x \$250.00</td> </tr> <tr> <td colspan="3">Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).</td> <td>\$ 130.00</td> </tr> <tr> <td colspan="3"> <table border="1"> <thead> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE</th> </tr> </thead> <tbody> <tr> <td>Total claims</td> <td>- 20 =</td> <td>0</td> <td>x 50.00</td> </tr> <tr> <td>Independent claims</td> <td>- 3 =</td> <td>0</td> <td>x 200.00</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+</td> </tr> </tbody> </table> </td> <td>\$ 130.00</td> </tr> <tr> <td colspan="3"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td><b>\$ 130.00</b></td> </tr> <tr> <td colspan="3"> <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.         </td> <td>65.00</td> </tr> <tr> <td colspan="3"><b>SUBTOTAL =</b></td> <td><b>\$ 65.00</b></td> </tr> <tr> <td colspan="3">Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).</td> <td>\$</td> </tr> <tr> <td colspan="3"><b>TOTAL NATIONAL FEE =</b></td> <td><b>\$ 0.00</b></td> </tr> <tr> <td colspan="3">Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property</td> <td>\$</td> </tr> <tr> <td colspan="3"></td> <td>\$</td> </tr> <tr> <td colspan="3"><b>TOTAL FEES ENCLOSED =</b></td> <td><b>\$ 1,145.00</b></td> </tr> <tr> <td colspan="3">65.00 DA</td> <td>Amount to be refunded: \$</td> </tr> <tr> <td colspan="3"></td> <td>Amount to be charged \$</td> </tr> </table> |  |   | 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... | \$300        | CALCULATIONS | PTO USEONLY |              | \$     |   |         | 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))<br>If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... | \$0   |   |          | All other situations .....                  | \$200 | \$ |   | 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))<br>If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ..... | \$0 |  |  | Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... | \$100 | \$ |  | International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB ..... | \$400 |  |  | All other situations ..... | \$500 |  |  | <b>TOTAL OF 21, 22 and 23 =</b> |  | <b>\$</b> | <b>0.00</b> | <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof. |  |  |  | Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE | - 100 = | /50 = |  | x \$250.00 | Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)). |  |  | \$ 130.00 | <table border="1"> <thead> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE</th> </tr> </thead> <tbody> <tr> <td>Total claims</td> <td>- 20 =</td> <td>0</td> <td>x 50.00</td> </tr> <tr> <td>Independent claims</td> <td>- 3 =</td> <td>0</td> <td>x 200.00</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+</td> </tr> </tbody> </table> |  |  | CLAIMS | NUMBER FILED | NUMBER EXTRA | RATE | Total claims | - 20 = | 0 | x 50.00 | Independent claims | - 3 = | 0 | x 200.00 | MULTIPLE DEPENDENT CLAIM(S) (if applicable) |  |  | + | \$ 130.00 | <b>TOTAL OF ABOVE CALCULATIONS =</b> |  |  | <b>\$ 130.00</b> | <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½. |  |  | 65.00 | <b>SUBTOTAL =</b> |  |  | <b>\$ 65.00</b> | Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)). |  |  | \$ | <b>TOTAL NATIONAL FEE =</b> |  |  | <b>\$ 0.00</b> | Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property |  |  | \$ |  |  |  | \$ | <b>TOTAL FEES ENCLOSED =</b> |  |  | <b>\$ 1,145.00</b> | 65.00 DA |  |  | Amount to be refunded: \$ |  |  |  | Amount to be charged \$ |
| 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)).....   | \$300  | CALCULATIONS  | PTO USEONLY  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
|  | \$   |   |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
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| All other situations .....   | \$200  | \$  |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
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| International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB .....   | \$400  |   |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| All other situations .....   | \$500  |   |  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <b>TOTAL OF 21, 22 and 23 =</b>  |  | <b>\$</b>   | <b>0.00</b>  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
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| Total Sheets   | Extra Sheets                                       | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| - 100 =  | /50 =  |   | x \$250.00   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).   |  |   | \$ 130.00  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <table border="1"> <thead> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE</th> </tr> </thead> <tbody> <tr> <td>Total claims</td> <td>- 20 =</td> <td>0</td> <td>x 50.00</td> </tr> <tr> <td>Independent claims</td> <td>- 3 =</td> <td>0</td> <td>x 200.00</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+</td> </tr> </tbody> </table>  |  |   | CLAIMS   | NUMBER FILED | NUMBER EXTRA | RATE        | Total claims | - 20 = | 0 | x 50.00 | Independent claims   | - 3 = | 0 | x 200.00 | MULTIPLE DEPENDENT CLAIM(S) (if applicable) |       |    | + | \$ 130.00  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| CLAIMS   | NUMBER FILED                                       | NUMBER EXTRA  | RATE   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| Total claims   | - 20 =   | 0   | x 50.00  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| Independent claims   | - 3 =  | 0   | x 200.00   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |  |   | +  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>   |  |   | <b>\$ 130.00</b>   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.  |  |   | 65.00  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <b>SUBTOTAL =</b>  |  |   | <b>\$ 65.00</b>  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).  |  |   | \$   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <b>TOTAL NATIONAL FEE =</b>  |  |   | <b>\$ 0.00</b>   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property   |  |   | \$   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
|  |  |   | \$   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| <b>TOTAL FEES ENCLOSED =</b>   |  |   | <b>\$ 1,145.00</b>   |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
| 65.00 DA   |  |   | Amount to be refunded: \$  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |
|  |  |   | Amount to be charged \$  |              |              |             |              |        |   |         |  |       |   |          |   |       |    |   |  |     |  |  |  |       |    |  |  |       |  |  |                            |       |  |  |                                 |  |           |             |   |  |  |  |              |              |   |      |         |       |  |            |  |  |  |           |   |  |  |        |              |              |      |              |        |   |         |                    |       |   |          |   |  |  |   |           |                                      |  |  |                  |   |  |  |       |                   |  |  |                 |   |  |  |    |                             |  |  |                |  |  |  |    |  |  |  |    |                              |  |  |                    |          |  |  |                           |  |  |  |                         |

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NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Michael Halas

SIGNATURE

Michael O. Halas

NAME

CUSTOMER NUMBER: 56949

59,371

REGISTRATION NUMBER

Application No. (if known): 10/582,298

Attorney Docket No.: 19240.171US3

## Certificate of Express Mailing Under 37 CFR 1.10

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Transmittal Letter to the United States Designated-Elected Office (3 pages)  
Declaration (2 pages)  
Supplemental Application Data Sheet (3 pages)  
Petition for Extension of Time (1 page)  
Part 2 Copy of Notice (2 pages)  
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|                             |                        |                                     |
|-----------------------------|------------------------|-------------------------------------|
| U.S. APPLICATION NUMBER NO. | FIRST NAMED APPLICANT  | ATTY. DOCKET NO.                    |
| 10/582,298                  | Anargyros Papageorgiou | 19240.171 US3                       |
|                             |                        | INTERNATIONAL APPLICATION NO.       |
|                             |                        | PCT/US04/03074                      |
|                             |                        | I.A. FILING DATE      PRIORITY DATE |
|                             |                        | 02/04/2004      12/15/2003          |
| RECEIVED                    |                        |                                     |
| FEB 26 2007                 |                        |                                     |
| WCPHD                       |                        |                                     |
| CONFIRMATION NO. 3844       |                        |                                     |
| 371 FORMALITIES LETTER      |                        |                                     |
| <br>*OC000000022552866*     |                        |                                     |

Date Mailed: 02/20/2007

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Indication of Small Entity Status
- Copy of the International Application filed on 06/12/2006
- Copy of the International Search Report filed on 06/12/2006
- Small Entity Statement filed on 06/12/2006
- U.S. Basic National Fees filed on 06/12/2006
- Priority Documents filed on 06/12/2006

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.

#### SUMMARY OF FEES DUE:

Total additional fees required for this application is **\$65** for a Small Entity:

- **\$65** Surcharge.

WILMER CUTTER PICKERING  
 HALE And DORR LLP DOCKETING  
 RE: 19240.171 US3  
 Action Date: 02/20/07  
 Action to be Taken: Missing Reg  
 Docketed By: JAG On: 2/20/07

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.  
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

CHRISTINE S WASHINGTON

Telephone: (703) 308-9140 EXT 228

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| U.S. APPLICATION NUMBER NO. | INTERNATIONAL APPLICATION NO. | ATTY. DOCKET NO. |
|-----------------------------|-------------------------------|------------------|
| 10/582,298                  | PCT/US04/03074                | 19240.171 US3    |

FORM PCT/DO/EO/905 (371 Formalities Notice)